

06 16V 90. 42

WEDNESDAY, 2:00 PM
Parlors 1-3

**HUMAN POPULATION
MONITORING**
B. Brandriff and G.R. Douglas,
Presiding

2:00
COMPARISONS OF SISTER
CHROMATID EXCHANGES,
CHROMOSOMAL ABERRATIONS,
AND GLYCOPHORIN-A NULL
VARIANT ERYTHROCYTES IN
WOMEN RECEIVING CHEMOTH-
ERAPY FOR BREAST CANCER
A.J. Wyrobek, A.V. Carrano, W.L.
Bligh, J.D. Tucker, R.G. Langhin,
R.H. Jensen, R.B. Everson, Lawrence
Livermore National Laboratory,
Livermore, CA and National Institute
of Environmental Health Sciences,
Research Triangle Park, NC

2:15
INDUCTION, ACCUMULATION,
AND PERSISTENCE OF CYTO-
GENETIC CHANGES IN LYMPHO-
CYTES OF PATIENTS RECEIVING
CHEMOTHERAPY FOR BREAST
CANCER
J.D. Tucker, R.B. Everson, A.J.
Wyrobek, A.V. Carrano, M.L.
Christensen, J.T. Carpenter, L.N.I.,
Livermore, CA; NIEHS, RTP, NC;
and University of Alabama, Birming-
ham, AL

2:30
CHEMOTHERAPY WITH MU-
TAGENIC AGENTS ELEVATES
THE *IN VIVO* FREQUENCY OF
GLYCOPHORIN-A "NULL" VARI-
ANT ERYTHROCYTES
W.L. Bligh, R.G. Langhin, R.H. Jen-
sen, A.V. Wyrobek, R.B. Everson,
L.N.I., Livermore, CA and NIEHS,
RTP, NC

2:45
SPERM CHROMOSOMAL
ANALYSIS IN A SURVIVOR OF
SEMINOMA AND ASSOCIATED
RADIOTHERAPY
B. Brandriff, L.A. Gordon, J. Sharlip,
A.V. Carrano, Lawrence Livermore
National Laboratory, Livermore, CA
and Children's Hospital, Oakland, CA

WEDNESDAY, 2:00 PM
Parlors 7-9

**MAMMALIAN CELL
MUTAGENESIS**
M.L. Melny and C.J. Rudd,
Presiding

2:00
MUTAGENESIS BY DNA
CROSSLINKING AGENTS IN
PANCREAS ANEMIA LYMPHO-
BLASTOID CELLS
K. Totsu, M. Toyoda, A. Tachibana,
R. Ishida, H. Takebe, Kyoto
University, Kyoto, Japan and Aichi
Cancer Center Research Institute,
Nagoya, Japan

2:15
COMPARISON OF THE FREQUEN-
CY OF TO-RESISTANT HUMAN T
LYMPHOCYTES INDUCED BY
ETHYLNITROSUREA (ENU),
BENZOLPYRENE 7,8-DIOL-9,10-
EPOXIDE (BPDE), UV AND ⁶⁰Co
RADIATION
T. Norimura, J.S. Kimball, S.
Michael, V.M. Maher, J.J. McCor-
mick, Michigan State University, East
Lansing, MI

2:30
THE EFFECT OF 245 GHz RA-
DIOFREQUENCY RADIATION
(RFR) ON PROFLAVIN INDUCED
MUTAGENESIS IN L517Y CELLS
M.L. Melny, P. Eagan, D.N. Erwin,
University of Texas Health Science
Center and USAF School of
Aerospace Medicine, San Antonio, TX

2:45
EFFECTS OF HEAVY ION RADIA-
TION ON SOMATIC MUTATION
AND DNA TRANSCRIPTION
T.C. Yang, C.A. Tobin, Lawrence
Berkeley Laboratory, Berkeley, CA

3:00 - 3:30 COFFEE BREAK

WEDNESDAY, 3:30 pm - 5:30 pm

SYMPOSIUM

MOLECULAR BIOLOGY OF DNA REPAIR

Ballroom 3

Regina Cook-Goldstein, Presiding

Sponsor: Arthur D. Little, Inc.

To prevent death, mutations and cancer, cells have evolved complex pathways for repair of DNA damage. In bacteria, several independent regulatory networks that are induced in response to DNA damage and stress have been identified. In yeast, three main pathways of DNA repair have been described, and many of the genes involved have been cloned allowing detailed analysis of the processes. Recently, some human DNA repair genes which affect different pathways have been transfected into repair deficient rodent cells and are being characterized. Preferential repair of damage in transcriptionally active genes also has been demonstrated in mammalian cells, and it appears that damage processing in active genes rather than overall repair correlates best with biological endpoints.

3:30 DAMAGE INDUCIBLE RESPONSES IN BACTERIA

Graham Walker
Massachusetts Institute of Technology

4:00 CHARACTERIZING YEAST DNA REPAIR BY USE OF CLONED GENES

David Schild
Lawrence Berkeley Laboratory

4:30 MAPPING, ISOLATION, AND CHARACTERIZATION OF HUMAN DNA REPAIR GENES

Larry Thompson
Lawrence Livermore National Laboratory

5:00 INTRAGENOMIC HETEROGENEITY IN MAMMALIAN DNA REPAIR

Philip Hanawalt
Stanford University

WEDNESDAY, 5:30 pm - 8:00 pm

PUBLIC SYMPOSIUM

BHOPAL - GENETIC CONSEQUENCES ???

Ballroom 5

Henry E. Holden, Presiding

Sponsors: The Laboratory of Radiobiology and Environmental Health
of the University of California, San Francisco

Environmental Health Research and Testing Laboratory of
Lexington, Kentucky

The past forty years has seen an increasing number of incidences where large populations have been exposed to mutagenic or potentially mutagenic substances. Disasters such as those that occurred at Bhopal, Chernobyl, Seveso and Hiroshima/Nagasaki have led to great concern over the impact of widespread exposure to substances which may or may not have genetic consequences in the survivors both in terms of increased cancer risk and in terms of the genetic disease burden over several generations. This symposium will address the state of the art genetic research dealing with these issues.

This Symposium will be open to the public and questions from the audience will be welcome in the concluding panel discussion.

5:30 INTRODUCTORY REMARKS

Henry Holden
Piper Inc.

5:40 ASSESSING GENOTOXICITY IN HUMAN POPULATIONS: TOOLS,
TACTICS AND TRUTH

Richard Albertini
University of Vermont

6:30 GENETIC TOXICITY OF METHYL ISOCYANATE

Michael Shelby
National Institute of Environmental Health Sciences

7:20 COMMENTARY AND SUMMARY

Herbert Kussidant
Case Western Reserve University

7:30 PANEL DISCUSSION

THURSDAY, 8:30 AM
Ballroom 5

CYTOGENETIC METHODS
V.L. Sawin and J.W. Yager,
Presiding

8:30
NONRANDOM KILLING OF T-
LYMPHOCYTES IN CRYOPRESER-
VATION
G.H.S. Strauss, W.I. Stanford, U.S.
Environmental Protection Agency and
Environmental Health Research and
Testing, Research Triangle Park, NC

8:45
A RAT LIVER MICRONUCLEUS
ASSAY EMPLOYING 4AAF AS MI-
TOGEN
J. Ashby, I. Brathwaite, Imperial
Chemical Industries Plc, Alderley
Park, Macclesfield, Cheshire, UK

9:00
EVALUATION OF THE CYTO-
KINESIS BLOCK MODIFICATION
OF THE PERIPHERAL LYMPHO-
CYTE MICRONUCLEUS METHOD
J.W. Yager, M. Sorsa, University of
California, Berkeley, CA and Institute
of Occupational Health, Helsinki, Fin-
land

THURSDAY, 8:30 AM
Ballroom 6

CYTOGENETIC TESTING I
J. Nath and E.B. Whorton, Jr.,
Presiding

8:30
SISTER CHROMATID EXCHANGE
STUDIES IN PRIMARY MOUSE
BONE MARROW AND SPLEEN
CELL CULTURES
L.M. Soter, G. Krishna, J. Nath, T.
Ong, West Virginia University and
National Institute for Occupational
Safety and Health, Morgantown, WV

8:45
A COMPARATIVE CYTO-
PHOSPHAMIDE-INDUCED SISTER
CHROMATID EXCHANGE PER-
SISTENCE IN MOUSE BONE MAR-
ROW AND SPLEEN CELLS
G. Krishna, J. Nath, T. Ong, National
Institute for Occupational Safety and
Health, and West Virginia University,
Morgantown, WV

9:00
CLASTOGENIC EFFECT OF
ACRYLAMIDE IN MOUSE BONE
MARROW
L.D. Adler, U. Klesch, Institut für
Genetik, Neuberberg, Federal Repub-
lic of Germany

THURSDAY, 8:30 AM
Pavilion 1-3

COMPLEX MIXTURES I
P. Flesch and J. Lewtas,
Presiding

8:30
COUPLING OF MICROSUSPENSION MUTAGENICITY ASSAYS WITH HPLC TO PRODUCE BIOASSAY CHROMATOGRAMS (MUTAGRAMS) OF COMPLEX MIXTURES
J. Lewtas, J. Chappell, D. DeMarini, J. Iversen, L. King, L. Clayton, K. Williams, U.S. Environmental Protection Agency, Research Triangle Park, NC

8:45
MUTAGENICITY OF COMBUSTION PARTICLES FROM SEVERAL COMMON BIOMASS FUELS
D.A. Bell, K.R. Smith, R.M. Kamana, University of North Carolina, Chapel Hill, NC and East West Center, Honolulu, HI

9:00
MUTAGENICITY OF COMPLEX MIXTURES OF POLYCYCLIC AROMATIC HYDROCARBONS (PAH) PRESENT IN THE STANDARD REFERENCE MATERIAL (SRM) 1649
A.S. Raj, M. Katz, York University, Toronto, Ontario, Canada

THURSDAY, 8:30 AM
Pavilion 7-9

CELL TRANSFORMATION
J.R. Landolph and J.W. Spalding,
Presiding

8:30
EFFECT OF CELL DENSITY UPON FREQUENCIES OF CHROMOSOME CELL TRANSFORMATION INDUCED BY N-METHYL-N-NITRO-N-NITROSOGUANIDINE
C.J. Bocello, D.J. Abernethy, Chemical Industry Institute of Toxicology, Research Triangle Park, NC

8:45
GENOTOXICITY OF ASPIRIN, PHENACETIN AND ACETAMINOPHEN IN CHROMOSOME MOUSE EMBRYO CELLS
S.M. Patierno, J.R. Landolph, University of Southern California, Los Angeles, CA

9:00
ONCOGENIC TRANSFORMATION AND GENOTOXICITY FROM PARAQUAT GENERATED SUPEROXIDE RADICAL ALONE AND COMBINED WITH GAMMA IRRADIATION IN BALB/C 3T3 AND CHROMOSOME CELLS
C.R. Gerd, M. Georgescu, M. Traviano, Columbia University, New York, NY

06 10V 90 18

THURSDAY, 9:15 AM
Ballroom 5

CYTOGENETIC METHODS
V.L. Sawin and J.W. Yager,
Presiding

9:15
FLOW CYTOMETRY AS A SHORT
TERM ASSAY FOR *IN VIVO* CLAS-
TOGENICITY: EFFECTS IN VARI-
OUS TISSUES
V.L. Sawin, K. McBee, J.W. Bickham,
Shell Development Company, Hous-
ton, TX and Texas A&M University,
College Station, TX

9:30
FLOW CYTOMETRY AS A SHORT
TERM ASSAY FOR *IN VIVO* CLAS-
TOGENICITY: RESPONSE WITH
TIME
V.L. Sawin, K. McBee and J.W. Bick-
ham, Shell Development Company,
Houston, TX and Texas A&M Univer-
sity, College Station, TX

9:45
A NOVEL ASSAY FOR DETECT-
ING CLASTOGENIC EFFECTS US-
ING A MONOCHROMOSOMAL
HYBRID CELL LINE
S.S. Sandhu, B.S. Athwal, U.S. En-
vironmental Protection Agency,
Research Triangle Park and Univer-
sity of Medicine and Dentistry of New
Jersey, Newark, NJ

THURSDAY, 9:15 AM
Ballroom 6

CYTOGENETIC TESTING I
J. Nath and E.B. Whorton, Jr.,
Presiding

9:15
BENZENE INDUCES CHROMO-
SOME ABERRATIONS IN SPER-
MATOGONIAL STEM CELLS OF
CHRONICALLY EXPOSED
MICE
K. Rithidech, W.W. Au, V.M.S.
Ramanujam, E.B. Whorton, Jr., M.S.
Legator, The University of Texas
Medical Branch, Galveston, TX

9:30
INDUCTION OF CHROMOSOME
ABERRATIONS IN HUMAN FI-
BROBLASTS PERMISSIVELY IN-
FECTED WITH HUMAN CYTOME-
GALOVIRUS
S.A. Bakar, T. Albrecht, W.W. Au,
M.S. Legator
The University of Texas Medical
Branch, Galveston, TX

9:45
PROLIXIN INCREASES CHROMO-
SOME DAMAGE AND SISTER
CHROMATID EXCHANGES IN
CULTURED HUMAN LYMPHO-
CYTES
D.A. Shafer, B. Cambior, P.M. Smith,
V.G. Dunbar, A. Falek, Georgia Men-
tal Health Institute and Emory
University, Atlanta, GA

10:00 - 10:30 COFFEE BREAK

06 16V 90 18

THURSDAY, 9:15 AM
Parlors 1-3

COMPLEX MIXTURES I
P. Fienzel and J. Lewtas,
Presiding

9:15
SEASONAL VARIATIONS AND
TRENDS IN CONCENTRATIONS
OF AIR PARTICLE MUTAGENS IN
CONTRA COSTA COUNTY, CA.
P. Fienzel, Y.Y. Wang, K. Chang, Cal-
ifornia Department of Health Services,
Berkeley, CA

9:30
THE INTEGRATED AIR CANCER
PROJECT: MUTAGENICITY OF
WOODSMOKE IMPACTED AIR
SHEDS
B. Andon, S. Warren, L. Claxton, L.
Capitt, R. Highsmith, R. Zwickliger,
R. Stevens, J. Lewtas, Environmental
Health Research and Testing, Incor-
porated and U.S. Environmental Pro-
tection Agency, Research Triangle
Park, NC

9:45
CYTOGENETIC DAMAGE TO FISH
CELLS AND EMBRYOS FOLLOW-
ING EXPOSURE TO CONTAM-
INATED SEA/SURFACE MICRO-
LAYER
R.M. Kucan, M.L. Landon, University
of Washington, Seattle, WA

THURSDAY, 9:15 AM
Parlors 7-9

CELL TRANSFORMATION
J.R. Landolph and J.W. Spalding,
Presiding

9:15
THE EFFECT OF CELL PASSAGE
ON THE DEMONSTRATION OF
VOMITOXIN-INDUCED MORPHO-
LOGICAL TRANSFORMATION IN
BALB/3T3-A31-1 CELLS
C.W. Shaw, F.M. Moreland, V.C.
Dostal, Division of Toxicology,
CFSAN/FDA, Washington, DC

9:30
A COMPARATIVE EVALUATION
OF SEVENTEEN CARCINOGENS
AND NON-CARCINOGENS IN
FOUR MAMMALIAN CELL
TRANSFORMATION ASSAYS
J.W. Spalding, S. Stankiewicz, R.W.
Trenham, C.G.T./National Institute of
Environmental Health Sciences,
Research Triangle Park, NC

9:45
POTENTIAL CARCINOGENICITY
OF EXTRACTS OF COAL AND
WOOD SMOKE EMISSIONS AS
DETERMINED BY THEIR ABILITY
TO INDUCE SURVIVAL IN CELLU-
LAR AGGREGATES
W.A. Suk, M.A. Chapman, J.D. Van
Arnold, J.L. Mumford, Northrop Sci-
ence, Incorporated, and the U.S. En-
vironmental Protection Agency,
Research Triangle Park, NC

10:00 - 10:30 COFFEE BREAK

06 NOV 90 18

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06 NOV 90

THURSDAY, 9 APRIL, 1987
Ballroom 4
10:30 AM - 12:00 PM

POSTER SESSION I

Posters are to be set up by 9:00 am of their scheduled day, and to remain up for viewing until 5:00 pm. It is required that an author be present during the scheduled poster session.

MAMMALIAN CELLS IN VITRO

1
SENSITIVITY TO THE CYTOTOXIC AND MUTAGENIC EFFECTS OF
NITROSPYRENE ARE REVERSED IN LS17BY STRAINS LYR AND LY-S
H.H. Evans, J. Menet, P.C. Howard
Case Western Reserve University, Cleveland, OH

2
IDENTIFICATION AND ISOLATION OF MAMMALIAN CELL CLONES
CONTAINING NON-SELECTABLE AMPLIFIED, TRANSFECTED OR
EXPRESSED SEQUENCES
T.G. Rumanan, I.M. Rubin
New York University Medical Center, New York, NY

3
APHIDICOLIN INDUCED METHOTREXATE-RESISTANT MUTANTS IN
CHINESE HAMSTER V79 CELLS
T. Moyl, C.C. Chang, J.E. Trunké
Michigan State University, East Lansing, MI

4
DELETION MUTATIONS ARE ASSOCIATED WITH THE DIFFERENTIAL
MUTATIONAL RESPONSE OF THE A552 AND CHOK1B4 CELL LINES
FOLLOWING TREATMENT WITH RADIO-MIMETIC DRUGS
K.R. Tindall, L.F. Stankowski, Jr.
National Institute of Environmental Health Sciences, Research Triangle Park, NC
and Pharmakon Research International, Incorporated, Waverly, PA

5
EVALUATING COMPOUNDS FROM COOKED BEEF FOR GENOTOXICITY
IN REPAIR DEFICIENT CHO CELLS
L.H. Thompson, S.A. Stewart, J.D. Tucker, E.P. Salazar, J.L. Minkler, A.V. Car-
raro, J.S. Fritton
Lawrence Livermore National Laboratory, Livermore, CA

6
EVALUATIONS OF ANTITUMOR DRUGS FOR MUTAGENIC POTENTIAL
IN THE CHO CELL SYSTEM
R.M. Baker, D. Sugg, F.J. Hausher III, J. Szekely-Sabo, R. Morgan
Grace Cancer Drug Center & Department of Experimental Therapeutics, Roswell
Park Memorial Institute, Buffalo, NY

7
A CHO CELL LINE RESISTANT TO DEOXYCHOLIC ACID
G. Chabral, E.W. Stuart, W.H. Bruce
Ludwig Institute for Cancer Research, Toronto, Ontario, Canada

06 10V 90 18
Ballroom 4, 10:30am - 12:00pm

THURSDAY POSTERS (continued)

8 RESTRICTION ENZYME-INDUCED MUTATIONS IN CHO CELLS

G.J. Horowitz, R.J. Preston

Oak Ridge National Laboratory and University of Tennessee Graduate School of
Biomedical Sciences, Oak Ridge, TN

9 EVALUATION OF THE DIVISION ARREST METHOD OF THE CHO/HGPRT
MUTATION ASSAY

Y. Oshiro, P.S. Balwierz, C.E. Piper
G.D. Searle & Company, Skokie, IL

10 DEVELOPMENT AND INVESTIGATION OF AN EXPANDED CHO/HGPRT
LOCUS ASSAY

D. McGregor, C. Risch, P. Cattanach, W. Caspary

Inveresk Research International Limited, Musselburgh, Scotland and National In-
stitute of Environmental Health Sciences, Research Triangle Park, NC

11 MODULATION OF CHEMICAL MUTAGENICITY BY RETINOLIDS IN THE
CHINESE HAMSTER OVARY/HYPOXANTHINE GUANINE PHOSPHORI-
BOSYL TRANSFERASE SPECIFIC LOCUS MUTATION ASSAY

J.D. Badruc, H.M. Schul, J.G. Shaddock, D.A. Castano

National Center for Toxicological Research, Jefferson, AR and The University of
Arkansas, Little Rock, AR

12 DETECTION OF MAMMALIAN CELL MUTAGENESIS IN ASS1 CELLS

L.F. Stankowski, Jr., W.G. Tuman, E.G. Godek, R.J. Matthews, R.W. Naimith
Pharmakon Research International Incorporated, Waverly, PA

13 SPONTANEOUS VARIATION AND SOURCES OF ERROR IN THE
CHO/HGPRT ASSAY

L.F. Stankowski, Jr., E.G. Godek, W.G. Tuman, M.J. Bleszczak, E.E. Stec, T. Ep-
husky, R.J. Matthews, R.W. Naimith
Pharmakon Research International Incorporated, Waverly, PA

14 QUANTITATIVE AND MOLECULAR ANALYSES OF FORMALDEHYDE-
INDUCED MUTATION IN MAMMALIAN CELLS

L.F. Stankowski, Jr., J.R. SanSebastian, W.G. Tuman, P.E. Glick, M.J. Berta,
R.J. Matthews, R.W. Naimith, K.R. Tindall
Pharmakon Research International Incorporated, Waverly, PA and National In-
stitute of Environmental Health Science, Research Triangle Park, NC

15 EFFECT OF OXYGEN RADICAL SCAVENGERS ON SPONTANEOUS MUTA-
TION RATE IN MAMMALIAN CELLS

L.F. Stankowski, Jr., W.G. Tuman, R.C. Nardone, R.J. Matthews, R.W. Naimith
Pharmakon Research International Incorporated, Waverly, PA

06 10V 20 1/2

Ballroom 4, 10:30am - 12:00pm

THURSDAY POSTERS (continued)

16
OPTIMIZATION OF AN S-S ACTIVATION MIXTURE FOR THE L5178Y TK⁺
MOUSE LYMPHOMA MUTATION ASSAY
J.B. Milejski, D.W. Matheson
Stauffer Chemical Company, Farmington, CT

17
MUTAGENICITY OF TOPOISOMERASE-ACTIVE AGENTS DUE TO CLAS-
TOGENIC MECHANISMS
M.M. Moore, Z.H. Brock, C.L. Doerr, D.M. DeMarini
U.S. Environmental Protection Agency, and Environmental Health Research and
Testing, Research Triangle Park, NC

18
HIGH RESOLUTION CYTOGENETIC ANALYSIS OF TK⁺ MUTANTS OF
L5178Y TK⁺ 3.7.2C CELLS: VARIATION IN BREAKPOINTS AMONG α TK⁺
MUTANTS
J. Sawyer, M. Moore, J. Huzler
Clinical and Diagnostic Foundation, Corpus Christi, TX, U.S. Environmental Pro-
tection Agency, Research Triangle Park, NC, and Florida Institute of Technology,
Melbourne, FL

19
IN SITU AND MOLECULAR ANALYSIS OF MUTATION AT THE TK LOCUS
IN MOUSE L5178Y TK⁺ 3.7.2C CELLS
M. Applegate, C. Broder, A. Wadhams, K. Kowech, J. Huzler, M. Moore, D.
Clive, A. Burrell
Florida Institute of Technology, Melbourne, FL, U.S. Environmental Protection
Agency and Burroughs Wellcome, Research Triangle Park, NC, and IBM, San
Jose, CA

20
THE MUTAGENIC EFFECT OF SEVEN COMPOUNDS AT THREE GENETIC
LOCUS IN L5178Y TK⁺ MOUSE LYMPHOMA CELLS
A.M. Bach, C. Hay, W.J. Caspary
Microbiological Associates, Incorporated and National Institute of Environmental
Health Sciences, Research Triangle Park, NC

21
COMPARISON OF F₁₀₀ AND RPMI USING L5178Y/TK⁺ 3.7.2C MOUSE LYM-
PHOMA CELLS
R. Krehl, G. McGee, D. Clive
Burroughs Wellcome Company, Research Triangle Park, NC

22
STUDIES WITH METHOTREXATE AT TA AND HGPRT LOCUS IN L5178Y
MOUSE LYMPHOMA CELLS
P.A. Pourman, N.L. Turner, R. Krehl, D. Clive
Burroughs Wellcome Company, Research Triangle Park, NC

23
SODIUM PYRUVATE INHIBITION OF H₂O₂-INDUCED MUTATION IN
MAMMALIAN CELLS
D. Spencer Dalton, W.J. Caspary
National Institute of Environmental Health Sciences, National Institute of Health,
Research Triangle Park, NC

06.7.2019 18

Ballroom 4, 10:30am-12:00pm

THURSDAY POSTERS (continued)

24. MUTAGENIC ACTIVITY AT THE TK LOCUS: ROBERT VS. HUMAN CELLS

W. Caspary, R. Langenbach, B. Peuman, C. Crespi, A. Mitchell, B. Myhr
National Institute of Health, Research Triangle Park, NC, Gentest, Woburn, MA,
Genesys Research, Mountainview, CA, and Hamilton Biotechnologies, Kensington,
MD

25. CHROMOSOME STUDIES OF CELLS FROM SPONTANEOUS AND CHEMICAL MUTAGEN-INDUCED SMALL (s) AND LARGE (L) UNSELECTED AND TRIFLUOROTHYMININE-RESISTANT (TFT) L5178Y MOUSE LYMPHOMA CELL COLONIES

W.F. Blazek, C.J. Rudd, F. Lou, K. Pardo, W.J. Caspary
SRI International, Menlo Park, CA and National Institute of Environmental
Health Sciences, Research Triangle Park, NC

26. MUTAGENICITY, SISTER CHROMATID EXCHANGE, AND ENDOREDUPPLICATION STUDIES ON HYDROXYLAMINE HCL

J.W. Harbell, W.H. McKeagle, L.W. Whicker, D.W. Korte Jr.
Letterman Army Institute of Research, San Francisco, CA, and North Carolina
State University, Raleigh, NC

27. MUTAGENICITY OF SULFIDES AND POLYSULFIDES IN THE MOUSE LYMPHOMA ASSAY

J.F. Dusek, G.R. Blackburn, C.A. Schreiner, C.R. Magerer
Mobil Environmental & Health Science Laboratory, Princeton, NJ

28. CORRELATION OF DNA PROTEIN CROSSLINKS (DPC) WITH CYTOTOXICITY AND MUTAGENICITY IN FORMALDEHYDE (HCHO) TREATED HUMAN LYMPHOBLASTS

E. Bermudez, T.R. Craft
Chemical Industry Institute of Technology, Research Triangle Park, NC

29. CELL KINETICS AND SISTER CHROMATID EXCHANGE FREQUENCIES OF HUMAN LYMPHOCYTES GROWN IN A MIXTURE OF HANK'S BALANCED SALT SOLUTION AND AUTOLOGOUS PLASMA

M.E. Gonschall, O.M. Muchnick
Departamento de Genética Instituto Nacional de la Nutrición, Mexico City, Mexico

30. DETECTION OF GENOTOXICITY OF GRAIN FUMIGANTS IN HUMAN LYMPHOCYTES

V.P. Garry, R. Nelson, M. Harkins
University of Minnesota, Minneapolis, MN

31. MODULATION OF RADIATION-INDUCED CHROMOSOME ABERRATIONS BY DMSO AN OIL RADICAL SCAVENGER

L.G. Ichniowski, E. Joiner, E.L. Frome, S.P. Colyer
Oak Ridge Associated Universities and Oak Ridge National Laboratory, Oak
Ridge, TN

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Ballroom 4, 10:30am - 12:00pm

THURSDAY POSTERS (continued)

32
N-METHYL-N-NITROSOUREA-INDUCED CELL KILLING AND MU-
TAGENESIS IN HUMAN FETAL CELL CULTURES CONTAINING DIFF-
FERENT LEVELS OF O-METHYLGUANINE-DNA METHYLTRANSFERASE
ACTIVITY

R. Mirzayans, M.V. Middendorf, M.C. Paterson (Invited by R.D. Munday)
Cross Cancer Institute, Edmonton, Alberta, Canada

33
EVALUATION OF TWO *IN VITRO* ASSAYS TO SCREEN FOR POTENTIAL
TERATOGENS

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34
COMPARATIVE EVALUATION OF UNSCHEDULED DNA SYNTHESIS (UDS)
IN HEPATOCYTES ISOLATED FROM VARIOUS MOUSE STRAINS

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Arkansas for Medical Sciences, Little Rock, AR

35
AN EVALUATION OF CYTOTOXICITY AND GENOTOXICITY OF BEN-
ZOYL PEROXIDE

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COMPLEX MIXTURES

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36
A COMPARISON OF THE MUTAGEN CONTENT OF FRIED CHICKEN AND
FRIED BEEF

N.H. Shen, M.G. Knaiz, F.T. Hatch, J.S. Felton
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37
DEVELOPMENT AND EVALUATION OF A PROTOCOL TO PREPARE
DRINKING-WATER SAMPLES FOR MUTAGENICITY TESTING

Y.Y. Wang, C.P. Diesel, R. Chang, D.A. Hollander, P.J. Maraden, L.R. Williams
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38
REACTION OF CHLORINE DIOXIDE WITH AMINO ACIDS AND PEP-
TIDES: KINETICS AND MUTAGENICITY STUDIES

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